

Colorado Basin Outlook Report May 1, 2013



This photo was taken on 4/30/13 at the Ironton Park snow course near Red Mountain Pass in the San Juan Mountains. The brown snow surface is a result of multiple dust on snow events associated with the storm systems that moved through the state in April. This dirty snow has been observed across the state this season. Although temperatures were notably cooler than average during April and early May, this year's snowpack could melt quicker than usual as solar radiation is more readily absorbed into the brown snow surface. For more information on dust on snow studies in Colorado please visit the Center for Snow and Avalanche Studies website: http://snowstudies.org/CODOS/index.html

Photo is courtesy of Lars Santana, NRCS Rangeland Management Specialist out of Montrose, CO.

Basin Outlook Reports

and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

Mage Hultstrand
Assistant Data Collection Office Supervisor
USDA, Natural Resources Conservation Service
Denver Federal Center, Bldg 56, Rm 2604
PO Box 25426
Denver, CO 80225-0426
Phone (720) 544-2855

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Colorado Water Supply Outlook Report May 1, 2013

Summary

After three consecutive months of below average snow accumulation in Colorado, multiple storm systems in April finally brought the moisture we had been hoping for all season. The state received above average precipitation during April which primarily occurred as snow, and brought snowpack totals to near normal levels in the northern basins. Unfortunately the southern portion of the state did not benefit from these storm systems. Warm and dry conditions dominated the Upper Rio Grande basin, the combined San Juan, Dolores, Animas, & San Miguel basins and the southern tributaries of the Gunnison basins during April. Reservoir storage remains below average across most of the state but conditions should improve in the northern basins as the recent snow begins to runoff. The most recent streamflow forecasts mimic the snow and precipitation conditions across the state; big improvements in the northern basins and further decline in the southern basins. Overall though the water supply outlook this month is better than just a month ago, this just goes to show how big of a difference just a few snowy weeks can make.

Snowpack

The wet weather pattern that started in late March continued into May and brought impressive improvements to snowpack percentages. After four consecutive months of snowpack reports that hovered in the low 70 percent range, the state snowpack recorded a significant gain this past month. Snowpack measurements recorded by automated SNOTEL sites and manual snow surveys across the state showed an increase of 9 percentage points from last month's report. As of May 1 the snowpack was at 83 percent of median. This was a very unusual April, in most years the snow accumulation season ends in early April, and the rest of the month is normally characterized as the beginning of runoff season. The watersheds in the northern part of the state saw the largest benefit from the snowy April, posting increases that ranged from 28 percentage points (in the South Platte basin) to 15 percentage points (in the Yampa and White basins). Unfortunately, basins to the south saw similar changes in their snowpack percentages, but in the opposite direction. The Upper Rio Grande and the combined San Juan, Dolores, Animas, and San Miguel basins saw decreases of 28 to 30 percentage points respectively.

Precipitation

Statewide precipitation, measured by the SNOTEL network, was 114 percent of average this April and 197 percent of last year's April totals. April was only the second month to record above average statewide precipitation this water year, with the previous month being back in December. The relatively wet month increased the water year to date totals to 80 percent of average on May 1, and 103 percent of last year's cumulative precipitation on the same date. Precipitation was quite variable throughout the state in April, it was really a story of the haves and the have not's. The combined Yampa, White and North Platte basins recorded precipitation at 146 percent of average for the month, the Colorado basin was at 140 percent of average and the South Platte was at 143 of average. The Gunnison basin ended up at 101 percent of average for the month as a result of half the basin receiving decent precipitation and the other half missing out on the storms. The lowest percent of average for the month was reported in the combined San Juan, Animas, Dolores and San Miguel basins with 48 percent of average.

Reservoir Storage

The cool, wet weather we experienced in April delayed the expected increase in reservoir storage volumes this month. Reservoir storage across the state is at 74 percent of average as of May 1, and 68 percent of last year's May1 storage amounts. The late season snowfall provides an optimistic outlook for storage improvements in the northern basins this spring. The additional runoff in these basins should extend water supplies further into the summer season. In the southern basins, storage levels remain well below average and the probability of vast improvements this season are slim. All in all we are still feeling the effects of the previous bleak winter but some basins should be able to replenish their reservoirs this season.

Streamflow

Most major basins in Colorado saw improvements to their streamflow forecasts this month. The northern basins once again boasted the greatest changes compared to last month; on average April to July forecasts in the combined Yampa, White and North Platte basins, the Colorado basin and the South Platte basin increased by 20 percentage points from those issued last month. A few of the headwater streams in the Colorado and South Platte basins are now expected to see near average flows. Despite these improvements, the majority of the forecasts in these basins still call for below average runoff this spring and summer season. On the flip side, current forecasts for the combined San Miguel, Dolores, Animas, and San Juan basins and the Upper Rio Grande basin call for streamflow volumes in the 30 to 50 percent of average range.

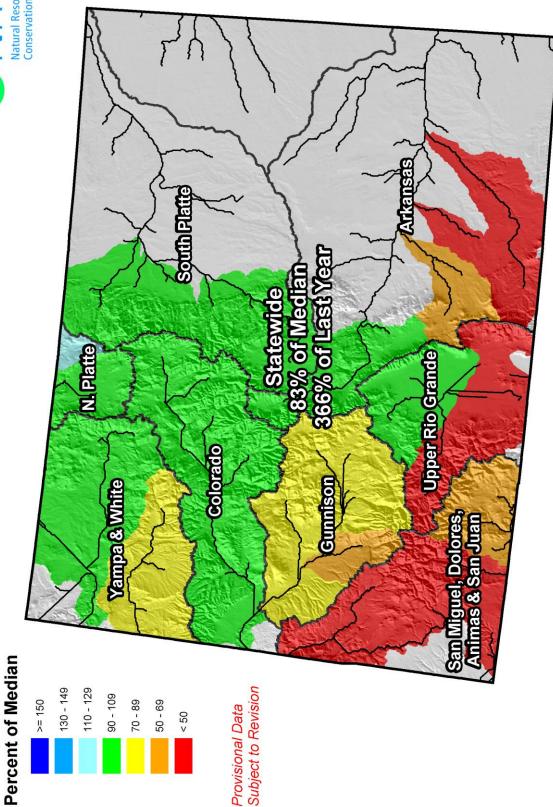
Special Note on Interpreting Forecasts

According to the National Water and Climate Center (NWCC), "a water supply forecast is a prediction of streamflow volume that will flow past a point on a stream during a specified season, typically in the spring and summer. These forecasts are given not as a single number, but as a range of numbers to reflect risk and forecast uncertainty. Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all forecasts are for streamflow volumes that would occur naturally without any upstream influences."

The forecasts we typically emphasize in this report are the 50 percent exceedance probability forecasts because they are in the middle of the range of forecasts with 50 percent chance that actual volumes will be above or below the predicted volume. The 50 percent exceedance forecasts assume that typical weather patterns will prevail into the forecast season. In a water year such as this one, when conditions have been anything but typical, it is important to pay attention to the other forecasts provided. If cool, wet conditions prevail into the rest of this spring and summer it may be prudent to use the 50 or 30 percent exceedance forecasts for management purposes this season. If conditions get very hot and dry this spring, actual streamflow volumes may be more in line with the 50 or 70 percent exceedance forecasts.

Colorado Snowpack Map

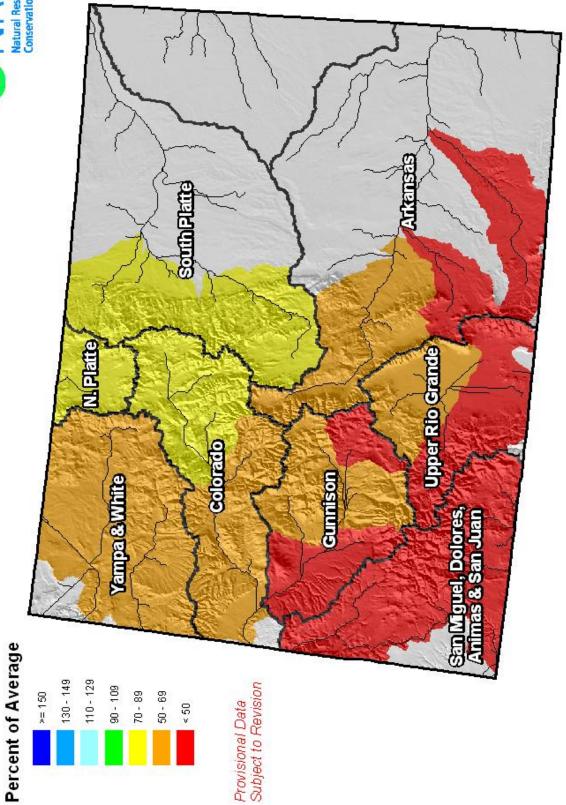




Current as of May 1, 2013

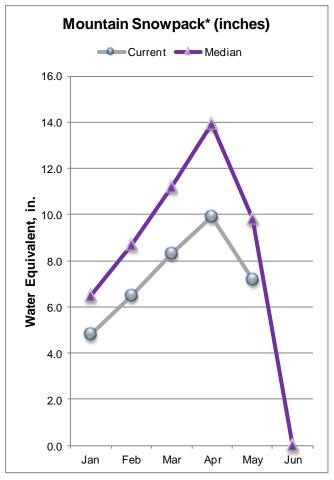
Colorado Streamflow Forecast Map

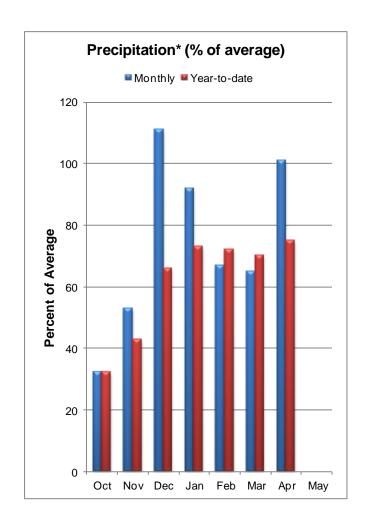




Current as of May 1, 2013

GUNNISON RIVER BASIN as of May 1, 2013





For five consecutive months the snowpack in the Gunnison River basin has maintained a nearly constant percent of median reading. May 1 snow surveys showed the snowpack to be 73 percent of the median compared to 71 percent on April 1, 74 percent on March 1, 75 percent on February 1 and 74 percent on January 1. The snow storms that hit Colorado during April boosted the snowpack in the northern tributaries of the Gunnison basin but generally missed the southern portion of the basin. According to data from automated SNOTEL sites within the basin, peak snow accumulation for this season was reached on April 21st, 11 days later than the typical peak date. Precipitation received in the basin during April was 101 percent of average which helped to boost the year to date precipitation to 75 percent of average as of May 1.

Reservoir storage at the end of April in the basin was 88 percent of average. Total storage amounts increased from 505,000 acre-feet last month to 585, 000 acre-feet this month. Nearly all the current streamflow forecasts for the Gunnison basin have improved slightly compared to those issued last month. The only forecasts that did not see improvements this month were those for the Uncompahgre River. Streamflow volumes from May to July are expected to range from just 34 percent of average for Tomichi Creek at Gunnison and Cochetopa Creek below Rock Creek to 68 percent of average for the Slate River near Crested Butte.

^{*}Based on selected stations

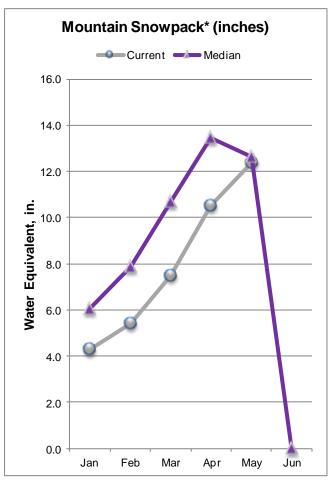
GUNNISON RIVER BASIN Streamflow Forecasts - May 1, 2013

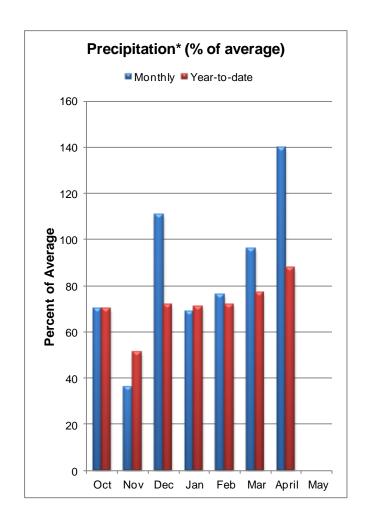
				======	.y 1, 2013				
		<<====	= Drier =		Future Co	nditions ==	===== Wetter =	====>>	
Forecast Point	Forecast	 ======		==== Ch	ance Of E	xceeding * ==		 	
	Period		70%	1	50	% I	30%	10%	30-Yr Avg.
		(1000AF) =======	(1000AF) === ===	(1000AF)	(% AVG.) ====================================	(1000AF) ((1000AF)	(1000AF) ========
Taylor Park Reservoir Inflow (2)	APR-JUL	50	59	į	66	67 I	73	84	99
	MAY-JUL	44	53		60	67 	67	78	90
Slate R nr Crested Butte	APR-JUL	43	49	į.	54	65	59	67	83
	MAY-JUL	39	45		50	68 	55	63	74
East R at Almont	APR-JUL	91	101	į	108	59	115	127	182
	MAY-JUL	83	93		100	60 	107	119	166
Gunnison R nr Gunnison (2)	APR-JUL	165	195	į	215	58	240	275	370
	MAY-JUL	149	179	l I	200	60 J	225	260	335
Tomichi Ck at Sargents	APR-JUL	7.5	10.8	į	13.6	45	16.8	22	30
	MAY-JUL	4.9	8.2	l I	11.0	42	14.2	19.6	26
Cochetopa Ck bl Rock Ck nr Parlin	APR-JUL	2.9	4.5	i	6.0	40	7.9	11.4	15.0
	MAY-JUL	0.9	2.5	l I	4.0	34	5.9	9.4	11.9
Tomichi Ck at Gunnison	APR-JUL	14.7	22	i	29	39	37	52	74
	MAY-JUL	6.6	14.2	l I	21	34	29	44	62
Lake Fk at Gateview	APR-JUL	48	56	i	62	50	68	78	123
	MAY-JUL	44	52	!	58	50	64	74	116
Blue Mesa Reservoir Inflow (2)	APR-JUL	268	312	i	345	51	379	433	675
	MAY-JUL	223	268	!	300	50 I	334	388	600
Paonia Reservoir Inflow (2)	MAR-JUN	30	37	-	42	44	48	57	96
	MAY-JUN	22	29	ĺ	34	49	40	49	69
	APR-JUL	27	36	ļ.	42	43	49	60	97
	MAY-JUL	21	30		36	48 	43	54	75
NF Gunnison R nr Somerset (2)	APR-JUL	124	144	į.	159	55	175	200	290
	MAY-JUL	105	125	l I	140	58 	156	181	240
Surface Ck at Cedaredge	APR-JUL	5.8	6.8	į	7.6	45	8.4	9.7	16.8
	MAY-JUL	4.7	5.7		6.5	46 	7.3	8.6	14.1
Ridgway Reservoir Inflow (2)	APR-JUL	36	43	i	48	48	54	62	101
	MAY-JUL	33	40	l I	45	50 I	51	59	91
Uncompangre R at Colona (2)	APR-JUL	41	52	i	61	45	71	86	137
	MAY-JUL	32	43	-	52	43	62	77	120
Gunnison R nr Grand Junction (2)	APR-JUL	480	585	i	660	45	740	875	1480
	MAY-JUL	380	485	I I	560	45 I	640	775	1240
						! 			
GUNNISON Reservoir Storage (100	RIVER BASIN	of April			 		NNISON RIVER BA owpack Analysis		2013
					=======				
Reservoir	Usable Capacity	*** Usab This	le Storag Last	e ***	 Water	shed	Number of		Year as % of
	1	Year	Year	Avg	İ		Data Site		
BLUE MESA		338.0			-	GUNNISON BA		349	78
					1				
CRAWFORD					i		IN 3		85
FRUITGROWERS	3.6	3.5	3.4	4.1	UNCOM	PAHGRE BASIN	4	219	55
FRUITLAND	9.2	4.5	4.9	4.9	TOTAL	GUNNISON RIV	ER BASIN 19	321	73
					1				
MORROW POINT	121.0	106.5	114.7	113.4					
PAONIA	15.4	7.0	12.7	7.4	į				
RIDGWAY	83.0	60.4	74.2	57.9	1				
					1				
TAYLOR PARK	106.0	59.2	72.8	59.9					
					-				

^{* 90%, 70%, 50%, 30%,} and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 The value is natural volume - actual volume may be affected by upstream water management.
 Median value used in place of average.

UPPER COLORADO RIVER BASIN as of May 1, 2013





Last month it seemed that there was very little chance that the snowpack in the Colorado River basin would reach normal amounts this season. It turns out that April was the comeback month for this basin thanks to multiple large storm systems and well above average snowfall throughout the month! As of May 1 the snowpack in the basin was at 98 percent of the median a 20 percentage point jump from last month's report. According to data from the SNOTEL sites in the basin, the snowpack also nearly reached normal peak accumulation totals thanks to the April showers. Peak snow accumulation for this season was reached on April 25th and was 94 percent of average peak accumulation totals for the basin. Precipitation in the Colorado basin was 140 percent of average during the month of April, and year to date precipitation is now at 88 percent of average.

Reservoir storage in the Colorado basin didn't fluctuate much compared to last month. Storage volumes were reported to be at 67 percent of average at the end of April. The late season snow received this past month has yet to runoff and should help to replenish the reservoirs in this basin in the coming months. Thanks to the snowy month, streamflow forecasts in the basin have increased an average of 16 percentage points from those issued last month. Forecasts for the lower part of the basin still call for below average flows from May to July but for some of the inflows to reservoirs in the headwater region we can now expect near average flows.

^{*}Based on selected stations

UPPER COLORADO RIVER BASIN Streamflow Forecasts - May 1, 2013

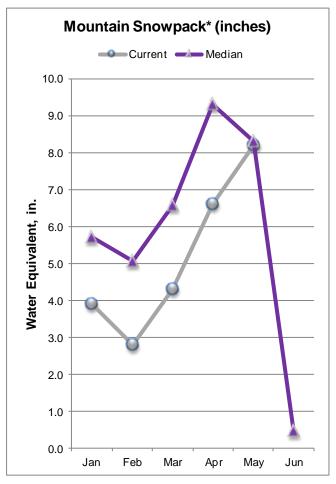
		 <<===== :	<pre><<===== Drier ===== Future Conditions ====== Wetter ====>></pre>								
Forecast Point	Forecast	 =======		= Chance Of E	xceeding * =		 				
	Period	90%	70%	J 50	-	30%	10%	30-Yr Avg.			
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)			
Lake Granby Inflow (2)	APR-JUL	165	185	200	91	215	240	220			
•	MAY-JUL	155	175	190	93	205	229	205			
Willow Ck Reservoir Inflow (2)	APR-JUL	33	41	I I 47	100 I	53	64	47			
,	MAY-JUL	30	38	44	102	50	61	43			
Williams Fk bl Williams Fk Reservoir	APR-JUL	62	72	I I 80	83 I	88	100	97			
	MAY-JUL	56	67	74	82	82	94	90			
Blue R bl Dillon (2)	APR-JUL	105	121	 132	81	144	162	163			
	MAY-JUL	98	114	125	82	137	155	153			
Blue R bl Green Mountain Reservoir	APR-JUL	175	205	l 225	82	245	280	275			
	MAY-JUL	161	189	210	82	232	265	255			
Muddy Ck bl Wolford Mtn Reservoir n	APR-JUL	28	35	 40	74	45	54	54			
	MAY-JUL	25	31	J 36	78 I	41	50	46			
Eagle R bl Gypsum (2)	APR-JUL	183	215	 240	72	265	305	335			
	MAY-JUL	172	205	230	74	256	297	310			
Colorado R nr Dotsero (2)	APR-JUL	825	970	 1080	77	1190	1370	1400			
	MAY-JUL	745	890	1000	78	1110	1290	1280			
Ruedi Reservoir Inflow (2)	APR-JUL	73	85	I J 93	67 I	102	115	139			
	MAY-JUL	70	82	J 90	69 I	99	112	130			
Roaring Fk at Glenwood Springs (2)	APR-JUL	345	395	430	62	465	525	690			
	MAY-JUL	320	369	405	63 I	442	500	640			
Colorado R nr Cameo (2)	APR-JUL	1280	1460	 1590	68	1730	1940	2350			
	MAY-JUL	1170	1350	1480	69	1620	1830	2150			
				' 							
UPPER COLORAI	OO RIVER BAS	SIN		1	UPPER	COLORADO RIV	ER BASIN				

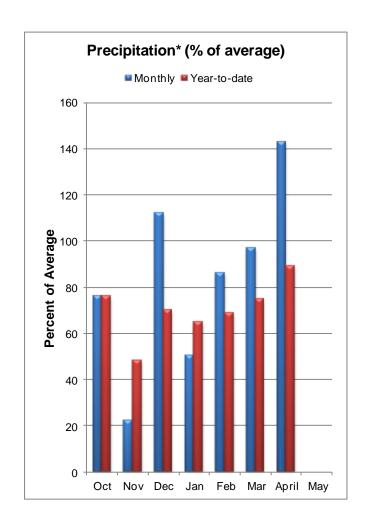
Reservoir	UPPER COLORADO Storage (1000	AF) - End	of Apri	 	UPPER COLORADO RIVER BASIN Watershed Snowpack Analysis - May 1, 2013					
Reservoir		Usable Capacity		able Storac Last Year		Watershed	Number of Oata Sites	This Yea	r as % of	
DILLON		254.0	161.8	239.6	212.8	BLUE RIVER BASIN	9	320	104	
LAKE GRANBY		465.6	107.2	346.1	259.5	UPPER COLORADO RIVER BAS	IN 31	340	99	
GREEN MOUNTAIN		146.8	58.4	81.8	54.3	MUDDY CREEK BASIN	2	628	103	
HOMESTAKE		43.0	0.3	0.3	16.8	PLATEAU CREEK BASIN	3	272	85	
RUEDI		102.0	62.5	77.3	59.7	ROARING FORK BASIN	8	375	96	
VEGA		32.9	11.3	28.6	16.6	WILLIAMS FORK BASIN	3	509	108	
WILLIAMS FORK		97.0	45.4	86.5	55.3	WILLOW CREEK BASIN	3	487	129	
WILLOW CREEK		9.1	6.4	6.4	5.9 5.9	TOTAL COLORADO RIVER BAS:	IN 42	338	97	

^{* 90%, 70%, 50%, 30%,} and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 The value is natural volume - actual volume may be affected by upstream water management.
 Median value used in place of average.

SOUTH PLATTE RIVER BASIN as of May 1, 2013





*Based on selected stations

The snowpack in the South Platte basin was 99 percent of median on May 1, up considerably from the April 1 measurement of 71 percent of median. This basin showed the greatest improvement in snowpack percentages of all the major basins in the state. Conditions tend to be the most favorable in the northern portion of the basin, ranging from 120 percent of median in the St. Vrain sub basin to 95 percent of median in both the Boulder Creek and the Upper South Platte sub basins. After three consecutive months of below average precipitation, April bounced back with a vengeance producing 143 percent of average mountain precipitation for the month. This boosted the precipitation totals for the water year, which began in October, to 89 percent of average as of May 1.

Reservoir storage in the basin was 87 percent of average and 86 percent of last year's storage at the end of April. The additional snow accumulation in the last month should help to replenish the reservoirs in the basin this spring. All streamflow forecasts in the basin saw major increases from last month's predictions. Forecasts for the Inflows to Spinney Mountain Reservoir and Elevenmile Canyon Reservoir now call for near average streamflow volumes from May to July. Elsewhere in the basin May to July runoff is expected to range from 69 percent of average for the Inflow to Antero Reservoir to 91 percent of average for South Boulder Creek near Eldorado Springs, the Cache la Poudre at Canyon Mouth and the Big Thompson at Canyon Mouth.

SOUTH PLATTE RIVER BASIN
Streamflow Forecasts - May 1, 2013

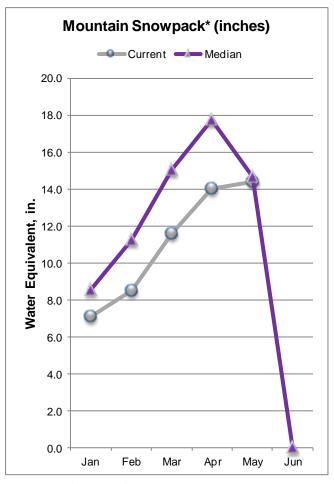
		<<=====	Drier ====	== Future Co	===== Wette			
Forecast Point	Forecast	 ===== =		= Chance Of E	xceeding * =		l	
Torecase Torne	Period	l 90%	70%	50	-	30%	10%	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
Antero Reservoir Inflow (2)	APR-JUL	 6.5	8.5	=====================================	70 l	11.9	15.1	14.5
. ,	APR-SEP	7.7	10.4	12.7	71	15.2	19.6	17.8
	MAY-JUL	5.4	7.4	9.0	69	10.8	14.0	13.1
	MAY-SEP	6.6	9.3	11.6	71	14.1	18.5	16.4
Spinney Mountain Res Inflow (2)	APR-JUL	32	39	I I 45	94 I	51	61	48
	APR-SEP	39	49	I 57	93	65	79	61
	MAY-JUL	27	34	1 40	91	46	56	44
	MAY-SEP	34	44	52	93	60	74	56
Elevenmile Canyon Res Inflow (2)	APR-JUL	31	39	 45	90 I	51	61	50
	APR-SEP	38	48	56	88	65	79	64
	MAY-JUL	26	34	1 40	89	46	56	45
	MAY-SEP	33	43	51	88	60	74	58
Changer Lake Inflow (2)	ADD - TIII	54	70	l 83	83 I	97	119	100
Cheesman Lake Inflow (2)	APR-JUL APR-SEP	67	89	1 106	84	125	155	126
		47	63	1 76	88	90	112	86
	MAY-JUL MAY-SEP	60	82	1 76	88 I	118	148	113
	MAI-SEP	60	82	99	°° I	110	140	113
South Platte R at South Platte (2)	APR-JUL	90	119	143	79	167	210	180
	APR-SEP	122	158	185	82	215	260	225
	MAY-JUL	79	108	132	85 J	156	197	156
	MAY-SEP	111	147	174	85 I	205	250	205
Bear Ck ab Evergreen	APR-JUL	8.0	10.9	13.3	81	16.0	21	16.4
2001 011 02 2101910011	APR-SEP	10.3	14.4	17.8	85	22	29	21
	MAY-JUL	7.2	10.1	12.5	88	15.2	20	14.2
	MAY-SEP	9.5	13.6	17.0	90	21	28	18.9
Bear Ck at Morrison	APR-JUL	9.8	13.7	 17.0	77 I	21	27	22
Dear Ck at Mollison	APR-SEP	12.2	17.7	22	77 I	27	37	28
	MAY-JUL	8.5	12.4	1 15.7	87 J	19.5	26	18.1
	MAY-SEP	10.9	16.4	21	88	26	36	24
Clear Ck at Golden	ADD - TIII	75	83	l I 90	86 I	97	108	105
Clear Ck at Golden	APR-JUL APR-SEP	90	102	1 110	86	119	132	128
		72	80	1 87	87 I	94	105	100
	MAY-JUL MAY-SEP	87	99	1 107	87 I	116	129	123
				!	!			
St. Vrain Ck at Lyons (2)	APR-JUL APR-SEP	61 71	69 81	75 88	85 85	81 96	90 108	88 103
	MAY-JUL	55	63	1 69	86	75	84	80
	MAY-SEP	65	75	1 82	86	90	102	95
- 11 111 (0)		20		!	. I		F.C	
Boulder Ck nr Orodell (2)	APR-JUL	39	44	47	87 J	50	56	54
	APR-SEP	44	50	54	86 I	58	65 53	63
	MAY-JUL MAY-SEP	36 41	41 47	44 51	86 86	47 55	53 62	51 59
				1	i			
S Boulder Ck nr Eldorado Springs(2)	APR-JUL	26	31	34	87 J	38	43	39
	APR-SEP	29	34] 38	88	42	49	43
	MAY-JUL	24	29	32	91	36	41	35
	MAY-SEP	27	32] 36 I	92 I	40	47	39
Big Thompson R at Canyon Mouth (2)	APR-JUL	65	74	80	89	86	95	90
	APR-SEP	75	87	96	90	105	117	107
	MAY-JUL	62	71	77	91	83	92	85
	MAY-SEP	72	84	93	91	102	114	102
Cache La Poudre at Canyon Mouth (2)	APR-JUL	160	185	I I 200	89	220	245	225
	APR-SEP	175	205	225	90	245	275	250
	MAY-JUL	150	175	192	91	210	235	210
	MAY-SEP	165	195	215	92	235	265	235

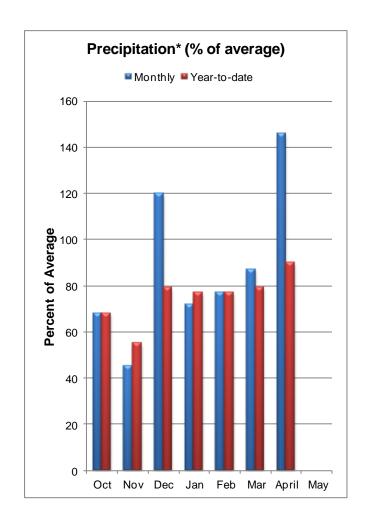
Reservoir Storage (1	TTE RIVER BASI	SOUTH PLATTE RIVER BASIN Watershed Snowpack Analysis - May 1, 2013						
Reservoir	Usable Capacity	*** Usa This	ble Stora Last Year		Watershed	Number of Data Sites	This Year	r as % of Median
ANTERO	19.9	16.1	15.9	15.7	BIG THOMPSON BASIN	7	351	97
BARR LAKE	30.1	25.9	26.9	28.6	BOULDER CREEK BASIN	5	439	100
BLACK HOLLOW	6.5	2.3	4.0	4.2	CACHE LA POUDRE BASIN	9	295	102
BOYD LAKE	48.4	15.7	39.4	1 35.2 ∣	CLEAR CREEK BASIN	3	308	100
BUTTON ROCK/RALPH PRICE	16.2	12.7	12.1	13.2	SAINT VRAIN BASIN	3	317	120
CACHE LA POUDRE	10.1	5.9	10.4	8.9 J	UPPER SOUTH PLATTE BASI	N 11	590	107
CARTER	108.9	101.3	86.0	103.0	TOTAL SOUTH PLATTE BASI	N 38	364	102
CHAMBERS LAKE	8.8	1.0	5.7	3.6				
CHEESMAN	79.0	50.3	69.6	64.8				
COBB LAKE	22.3	11.7	18.8	14.2				
ELEVEN MILE	98.0	96.5	99.8	96.4				
EMPIRE	36.5	35.3	33.5	33.0				
FOSSIL CREEK	11.1	10.7	9.9	8.1				
GROSS	41.8	25.8	31.3	20.9 J				
HALLIGAN	6.4	4.7	5.6	4.8				
HORSECREEK	14.7	3.6	10.8	14.5				
HORSETOOTH	149.7	106.7	133.4	123.0 I				
JACKSON	26.1	24.9	25.9	30.4 I				
JULESBURG	20.5	18.2	20.4	21.3				
LAKE LOVELAND	10.3	3.8	8.9	10.1				
LONE TREE	8.7	8.0	8.1	7.9				
MARIANO	5.4	3.1	3.6	5.0 I				
MARSHALL	10.0	7.5	9.6	7.4				
MARSTON	13.0	8.7	8.3	14.5				
MILTON	23.5	23.2	23.0	19.2				
POINT OF ROCKS	70.6	69.0	66.3	69.8 I				
PREWITT	28.2	23.8	23.9	25.9 I				
RIVERSIDE	55.8	47.1	49.5	57.9 I				
SPINNEY MOUNTAIN	49.0	20.2	44.8	32.1				
STANDLEY	42.0	29.0	35.4	35.3				
TERRY LAKE	8.0	6.3	7.4	5.7				
UNION	13.0	6.3	11.8	11.7				
WINDSOR	15.2	11.9	14.8	13.6				

^{* 90%, 70%, 50%, 30%,} and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 The value is natural volume - actual volume may be affected by upstream water management.
 Median value used in place of average.

YAMPA, WHITE, NORTH PLATTE AND LARAMIE RIVER BASINS as of May 1, 2013





Snow accumulation in the combined Yampa, White, North Platte and Laramie River basins was well above average during April. According the recent snow survey's the basins snowpack jumped from 79 percent of median on April 1 to 98 percent of median on May 1. Typically snowfall during April accounts for about 3 percent of the total peak snowpack, this season was anything but typical with April contributing 19 percent of the seasonal accumulation. Precipitation measured during April in these basins was a whopping 146 percent of average, the most precipitation, as a percent of average, received statewide. Total cumulative precipitation for the water year in these basins is now reported to be 90 percent of average, also the highest report in the state.

Storage in the Yamcolo and Stagecoach reservoirs increased by 5,000 acre-feet of water this past month. Storage in these reservoirs was at 107 percent of the average at the end of April and 84 percent of capacity. Current streamflow forecasts mimic the trends seen in the snow and precipitation data this past month. All forecast points in the basins are now expected to see streamflow volumes that are vast improvements over last year's this season. May to July streamflow volumes are expected to range from 54 percent of average for the Little Snake River near Dixon to 88 percent of average for the Laramie River near Woods Landing.

^{*}Based on selected stations

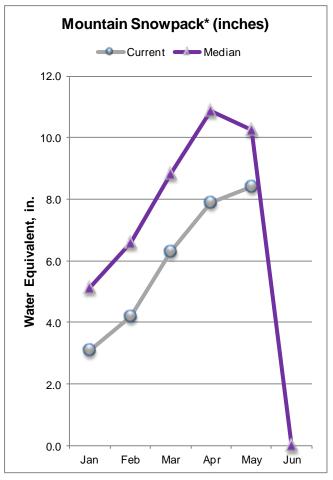
YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS Streamflow Forecasts - May 1, 2013

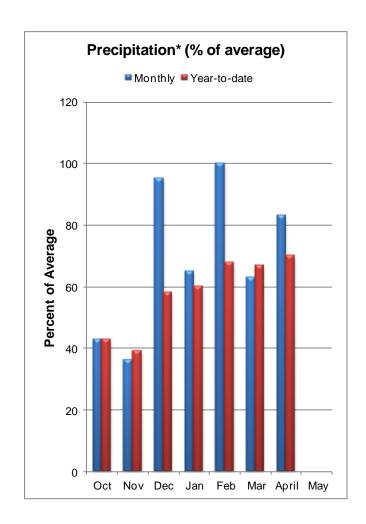
				s - May	 					
		<<=====	Drier ==	====]	Tuture Co	onditions ==	===== W	etter ==	===>>	
Forecast Point	Forecast	 =======		=== Cha	ance Of E	xceeding * =				
	Period	90%	70%	1	50		30		10%	30-Yr Avg.
		(1000AF)	(1000AF)	 == ====	(1000AF)	(% AVG.)	(100	0AF) (1 =======	.000AF)	(1000AF)
North Platte R nr Northgate	MAY-JUL	74	122	i	155	83	1	88	235	187
	MAY-SEP	80	136	!	174	83	2	10	270	210
Laramie R nr Woods	MAY-JUL	61	81	-	95	88 I	1	09	129	108
datamie i ii woods	MAY-SEP	67	90	i	105	88		20	143	119
				1						
Yampa R ab Stagecoach Reservoir (2)	APR-JUL MAY-JUL	12.8 6.9	16.2 10.3	-	18.9 13.0	82 81	16	22 0	27 21	23 16.0
	1211 001	0.5	10.5	i	13.0	01 1		. •		10.0
Yampa R at Steamboat Springs (2)	APR-JUL	145	170	1	189	73		09	240	260
	MAY-JUL	126	151	!	170	77	1	90	221	220
Elk R nr Milner	APR-JUL	176	218	i	250	78	2	84	338	320
	MAY-JUL	156	198	1	230	79	2	64	318	290
Elbhard Chab Iana Culab	ADD THE	23	31	!	38	52 I		46	59	73
Elkhead Ck ab Long Gulch	APR-JUL MAY-JUL	14.5	23	-	30	60 I		38	51	50
				i		i				
Yampa R nr Maybell (2)	APR-JUL	457	561	!	640	68 I		24	859	935
	MAY-JUL	382	487	-	565	73	6	49	784	775
Little Snake R nr Slater (2)	APR-JUL	68	82	i	92	59	1	03	120	156
	MAY-JUL	62	76	1	86	62		97	113	138
Little Snake R nr Dixon (2)	APR-JUL	100	140	-	172	50 I	2	07	265	345
Dictie Shake K III Dikon (2)	MAY-JUL	86	126	i	158	54		93	251	295
				i		i				
Little Snake R nr Lily (2)	APR-JUL	108	154	!	191	55 I		32 16	301 285	345
	MAY-JUL	92	138	-	175	60 I		10	205	290
White R nr Meeker	APR-JUL	124	153	i	174	62		97	234	280
	MAY-JUL	100	129		150	61	1	73	210	245
YAMPA, WHITE, AND NOR Reservoir Storage (1000			15			AMPA, WHITE, Watershed Sr				
	Usable	*** Mash	e Storage					====== Number	mbic N	ear as % of
Reservoir	Capacity	This	Last		Water	shed		of	=====	=========
	i	Year	Year	Avg			Da	ta Sites	Last Y	r Median
STAGECOACH	36.4	33.7	34.3	28.1	LARAM	HE RIVER BAS	======= SIN	 4	268	111
YAMCOLO	8.7	4.2	6.6	7.4	NORTH	I PLATTE RIVE	R BASIN	7	353	99
						NORTH PLATT		10	326	100
							E DASIN			
						RIVER BASIN		1	4363	97
					YAMPA	RIVER BASIN	ī	11	489	99
					WHITE	RIVER BASIN	ī	6	328	89
					TOTAL	YAMPA AND W	HITE RIV	16	460	95
					LITTI	E SNAKE RIVE	R BASIN	8	278	91
					 	YAMPA, WHIT	ריא רואה ישי	21	366	97
					IOTAL	I IAMEA, WILL	ראו מאשים.	31	300	91

^{* 90%, 70%, 50%, 30%,} and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 The value is natural volume - actual volume may be affected by upstream water management.
 Median value used in place of average.

ARKANSAS RIVER BASIN as of May 1, 2013





*Based on selected stations

The Arkansas River basin's snowpack was 82 percent of median as of May 1, an improvement of 9 percentage points from last month's report. Looking at the sub basin's snowpack reports, it is apparent that this springs weather patterns definitely favored the headwaters portion of the basin. The Upper Arkansas sub basin saw an increase from 78 percent of median on April 1 to 93 percent of median May 1. On the other hand, the Purgatoire and Cucharas and Huerfano sub basins saw significant decreases in their snowpack percentages this month. The Purgatoire's snowpack dropped from 48 percent of median to just 17 percent of median and the Cucharas and Huerfano's snowpack decreased from 62 percent of median to 50 percent of median. April precipitation in the basin was 83 percent of median, and year to date precipitation reflects the relatively dry water year so far, at just 70 percent of average. Precipitation totals in the basin have been below average nearly every month so far this water year.

Reservoir storage remains well below normal in the basin at 52 percent of average and 10 percent lower than the amount of storage available at this time last year. Current streamflow forecasts for the basin follow the trends of the current snowpack readings; the Upper Arkansas forecasts improved and the Purgatoire, Cucharas and Huerfano river forecasts declined. Even though it's an improvement over last month, the Arkansas River at Salida is still forecast to have May to July flows that will only be 67 percent of average.

ARKANSAS RIVER BASIN

Streamflow Forecasts - May 1, 2013

		Streamilo	w rorecas	ets - Ma	ay 1, 2013 =======					
		<<===== 	= Drier =		Future Co	nditions =	===== W	etter :	>>	
Forecast Point	Forecast	=====		==== Cl	nance Of E	xceeding *			i	
	Period	90% (1000AF)	70% (1000A)	[]	50 (1000AF)		30 (100		10% (1000AF)	30-Yr Avg. (1000AF)
Chalk Ck nr Nathrop	APR-JUL	5.8	9.3	==== === 	12.2	======== 58	=====================================	====== . 4	21	======================================
•	MAY-JUL	5.6	9.0	i	12.0	57	15	. 2	21	21
	APR-SEP	6.7	11.3	1	15.1		19		27	26
	MAY-SEP	6.4	11.0	-	14.8	57	19 	. 2	27	26
Arkansas R at Salida (2)	APR-JUL	122	147	i	166	69	1:	86	215	240
	MAY-JUL	111	136	1	155	67		75	205	230
	APR-SEP MAY-SEP	139 128	174 163	- !	200 189	11	-	30 20	275 265	295 280
	MAI SEF	120	103	i	103	00	1	20	203	200
Grape Ck nr Westcliffe	APR-JUL	2.2	3.6	1	4.9	31	-	. 4	9.1	15.9
	MAY-JUL	1.3	2.7	!	4.0		-	.5	8.2	12.7
	APR-SEP MAY-SEP	2.7 1.8	4.5 3.6	- !	6.1 5.2	31 32		.0 .1	11.2 10.3	19.6 16.4
	MAI SEF	1.0	3.0	i	3.2	32	, i		10.5	10.4
Arkansas R ab Pueblo (2)	APR-JUL	122	173	1	215	60		60	335	360
	MAY-JUL	109	160	Į.	200			45	320	330
	APR-SEP MAY-SEP	149 136	220 205	ļ	275 260	60 61		35 20	440 425	455 425
	MAI-SEP	136	205	i	260	61	1 3. I	20	423	425
Huerfano R nr Redwing	APR-JUL	3.1	4.4	i	5.4	45	6	. 5	8.4	11.9
	MAY-JUL	2.5	3.8	- 1	4.8		-	. 9	7.8	10.7
	APR-SEP	4.1	5.6	!	6.8		-	.0	10.2	15.2
	MAY-SEP	3.5	5.0	-	6.2	44	1 7 1	. 4	9.6	14.0
Cucharas R nr La Veta	APR-JUL	2.6	3.4	i	4.0	33	4	. 7	5.8	12.2
	MAY-JUL	2.2	3.0	!	3.6			. 3	5.4	10.8
	APR-SEP MAY-SEP	2.8 2.4	3.9 3.5	-	4.7 4.3	33 34		. 6 . 2	7.1 6.7	14.1 12.7
	1211 021	2.1	3.3	i	4.5	34	İ		0.7	12.,
Purgatoire R at Trinidad (2)	MAR-JUL	5.3	8.2	1	10.6		13		18.2	37
	MAY-JUL	3.6	6.5	!	8.9	30	11		16.5	30
	APR-SEP MAY-SEP	5.7 5.0	10.2 9.5	-	14.0 13.3	30 32	18 17		26 25	47 42
		0.0	3.0	i	23.3		i			
	RIVER BASIN				 	A	RKANSAS R	IVER B	ASIN	
Reservoir Storage (100	0 AF) - End	of April			<u> </u>	Watershed S	nowpack A	nalysi	s - May 1,	2013
	Usable	*** Usab	le Storaç	ge ***	1		1	Number	This	Year as % of
Reservoir	Capacity	This	Last	_	Water	shed	_	of		
	 	Year =======	Year =======	Avg	 = =======		Da: :========	ta Site	es Last =======	Yr Median =======
ADOBE	62.0	6.8	35.3	34.3	UPPER	ARKANSAS B	ASIN	10	287	93
CLEAR CREEK	11.4	7.2	7.6	6.0	CUCHA	RAS & HUERF	ANO RIVER	4	308	42
CUCHARAS RESERVOIR	40.0	0.1	0.1	6.9	 PURGA	TOIRE RIVER	BASIN	2	0	17
GREAT PLAINS	150.0	0.0		40.6	 TOTAL	ARKANSAS R	IVER BASI	15	291	79
HOLBROOK	7.0	0.0		4.7	1					
					İ					
HORSE CREEK	27.0	0.0		11.3	1					
JOHN MARTIN	616.0	28.8	37.5	123.7	1					
LAKE HENRY	8.0	4.9	7.3	6.0	I I					
MEREDITH	42.0	19.2	30.2	20.1	 					
PUEBLO	354.0	166.9	230.3	163.5	i I					
TRINIDAD	167.0	12.2	19.7	29.1	i I					
TURQUOISE	127.0	24.0	67.4	70.8	•					

^{* 90%, 70%, 50%, 30%,} and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

41.3

The average is computed for the 1981-2010 base period, except for the reservoir averages which are from 1971-2000.

34.4

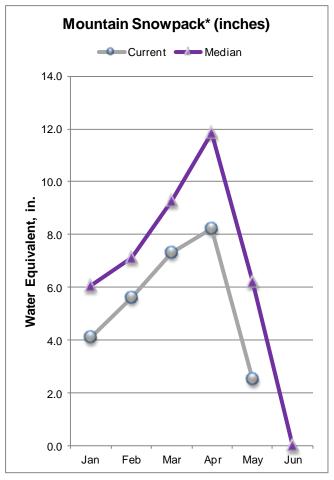
21.8

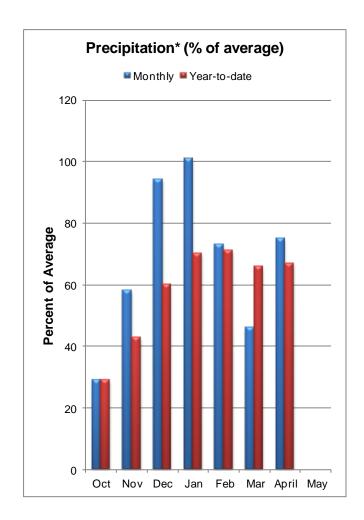
86.0

TWIN LAKES

The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 The value is natural volume - actual volume may be affected by upstream water management.
 Median value used in place of average.

UPPER RIO GRANDE RIVER BASIN as of May 1, 2013





The Upper Rio Grande basin missed out on all the moisture brought by the storm systems that hit the northern part of the state in April. The snowpack in the basin receded from 69 percent of median on April 1 to just 41 percent of median on May 1, this is the lowest snowpack percentage reported statewide. According to reading's from SNOTEL sites in this basin, the snowpack peaked in late March and began to melt in earnest in April. Monthly precipitation totals for April were 75 percent of average, in fact the only month this water year where precipitation measured was normal was January. Year to date totals for the basin were 67 percent of average as of May 1, which is just 82 percent of totals recorded last year at this time.

Reservoir storage in the Upper Rio Grande basin is 54 percent of average and 77 percent of the storage present a year ago. Streamflow forecasts across the basin have declined for the second month in a row. Water users in the region can expect well below average runoff during the May to September season. Streamflow volumes during this time are expected to range from 53 percent of average for the Inflow to Platoro Reservoir to 11 percent of average for the San Antonio River at Ortiz.

^{*}Based on selected stations

UPPER RIO GRANDE BASIN

Streamflow Forecasts - May 1, 2013

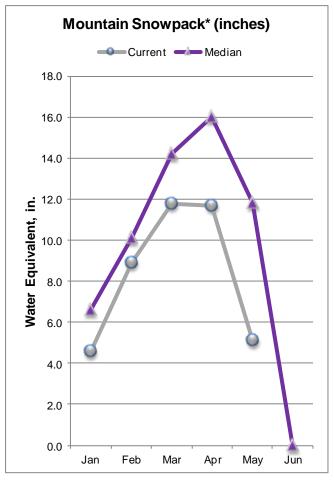
	 !	>	Drier ===	=== Future C	onditions ==	===== Wetter	====>>	
	recast eriod	90% (1000AF)	70% (1000AF)		Exceeding * == 0% (% AVG.)	30% (1000AF)	 	30-Yr Avg. (1000AF)
Rio Grande at Thirty Mile Bridge (2 AP	R-SEP	43	======================================	=====================================	47	 69	83	129
	Y-SEP	38	48	J 56	46	64	78	122
	R-JUL	39	47	J 53	47	59	69	113
MA	Y-JUL	34	42	1 48	45 I	54	64	106
Die Grande at Warren Wheel Com (2) AD	D CED	119	142	 160	47 I	179	210	340
	R-SEP Y-SEP	101	124	1 142	45	161	191	315
SF Rio Grande at South Fork (2) AP	R-SEP	44	50	I I 55	43 I	60	68	127
	Y-SEP	35	41	1 46	41	51	59	113
Rio Grande nr Del Norte (2) AP	R-SEP	172	205	1 225	44	250	290	515
	Y-SEP	145	177	200	43	225	265	470
Saguache Ck nr Saguache (2) AP	R-SEP	9.2	13.0	1 16.0	50 I	19.4	25	32
	Y-SEP	6.9	10.7	13.7	47	17.1	23	29
Alamosa Ck ab Terrace Reservoir AP	R-SEP	21	26	1 30	44	34	40	68
	Y-SEP	19.4	24	28	45	32	38	62
La Jara Ck nr Capulin MA	R-JUL	2.1	2.7	1 3.3	37	4.0	5.1	8.9
	Y-JUL	0.8	1.4	2.0	36	2.7	3.8	5.6
Trinchera Ck ab Turners Ranch AP	R-SEP	3.3	4.3	1 5.0	40 I	5.8	7.1	12.6
	Y-SEP	2.8	3.8	1 4.5	39	5.3	6.6	11.6
Sangre de Cristo Ck (2) AP	R-SEP	1.4	2.6	3.9	24	5.6	8.7	16.3
	Y-SEP	0.4	1.6	2.9	23	4.6	7.7	12.7
Ute Ck nr Fort Garland AP	R-SEP	2.4	3.9	I I 5.1	40 I	6.5	8.9	12.8
	Y-SEP	1.9	3.4	1 4.6	40	6.0	8.5	11.6
Platoro Reservoir Inflow (2) AP	R-JUL	23	27	I I 30	54 I	33	38	56
	Y-JUL	21	25	1 28	53	31	36	53
	R-SEP	25	30	33	53	37	42	62
	Y-SEP	23	28	31	53	35	40	59
Conejos R nr Mogote (2) AP	R-SEP	65	78	1 87	45	97	112	194
	Y-SEP	57	70	79	45	89	104	177
San Antonio R at Ortiz AP	R-SEP	1.5	1.8	2.2	14	2.6	3.4	15.6
	Y-SEP	0.3	0.6	1.0	11	1.4	2.2	9.4
Los Pinos R nr Ortiz AP	R-SEP	18.3	22	1 24	33 I	27	31	73
	Y-SEP	12.9	16.2	18.6	31	21	25	61
Culebra Ck at San Luis (2) AP	R-SEP	3.1	5.4	7.3	32	9.6	13.6	23
	Y-SEP	2.3	4.6	6.5	31	8.8	12.7	21
Costilla Reservoir Inflow (2) MA	R-JUL	2.8	3.7	I I 4.5	41	5.4	6.8	11.1
	Y-JUL	1.8	2.7	3.5	39	4.4	5.9	8.9
Costilla Ck nr Costilla (2) MA	R-JUL	4.9	6.8	8.5	33 I	10.5	13.9	26
	Y-JUL	2.0	3.9	5.6	29	7.6	11.1	19.6
HIDDER DAG COM								
UPPER RIO GRAN Reservoir Storage (1000 AF				UPPER RIO GRANDE BASIN Watershed Snowpack Analysis - May 1, 2013				2013
	sable	*** Usabl	e Storage			Numbe	r This	========= Year as % of
Reservoir Ca	pacity	This Year	Last Year	Wate	rshed	of Data Si	tes Last	Yr Median

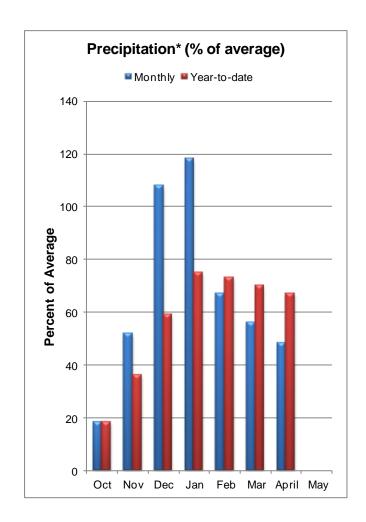
	Reservoir Storage (1000	-	of April	i	Watershed Snowpack Analysis - May 1, 2013						
Reservoir		Usable Capacity 		le Storage Last Year		Watershed	Number of Data Sites	This Year	r as % of		
CONTINENTAL		27.0	8.9	6.8	6.6 j	ALAMOSA CREEK BASIN	2	0	4		
PLATORO		60.0	8.9	15.2	23.3	CONEJOS & RIO SAN ANTO	NIO 4	449	31		
RIO GRANDE		51.0	14.7	21.0	21.4	CULEBRA & TRINCHERA CRI	EEK 4	0	36		
SANCHEZ		103.0	7.3	9.0	25.8	UPPER RIO GRANDE BASIN	11	164	45		
SANTA MARIA		45.0	7.3	7.5	11.1	TOTAL UPPER RIO GRANDE	BA 20	245	40		
TERRACE		18.0	4.4	7.8	7.8 						

^{* 90%, 70%, 50%, 30%,} and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 The value is natural volume - actual volume may be affected by upstream water management.
 Median value used in place of average.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS as of May 1, 2013





With the April storm systems completely missing this region, the snowpack in the San Miguel, Dolores, Animas, and San Juan basins began to melt this past month. These basins reached their peak snowpack on March 22nd, with the peak accumulation total this season being only 74 percent of the average maximum accumulation for these basins. As of May 1 the snowpack was only 43 percent of the median, a 30 percentage point decline from the April 1 report. Total precipitation recorded at the SNOTEL sites in these basins during April was a just 48 percent of the long term average amounts. Year to date precipitation declined for the fourth consecutive month to just 67 percent of average as of May 1.

With snow melt already occurring in these basins the reservoirs were able to increase their volumes slightly this past month. Reservoir storage was at 67 percent of average for this time of year and 49 percent of capacity. Forecasts in these basins dropped significantly for the second month in a row, declining by 11 percentage points on average. The largest decreases were in the Dolores River basin, whose two forecasts dropped 14 percentage points this past month. Runoff for the May to July period is expected to range from 37 percent of average for the Inlet to Cone Reservoir to 49 percent of average for the Inflow to Vallecito Reservoir. Elsewhere the Dolores River at Dolores is expected to see flows that are 40 percent of average for May to July.

^{*}Based on selected stations

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS

Streamflow Forecasts - May 1, 2013

		<<=====	Drier ==	==== 1	Future Co	nditions ===	==== Wetter	====>>	<u> </u>
Forecast Point	Forecast Period	•	70% (1000AF)	1	50° (1000AF)	**ceeding * == % (% AVG.)	30% (1000AF)	10% (1000AF)	 30-Yr Avg. (1000AF)
Dolores R at Dolores	APR-JUL MAY-JUL	69 52	85 68	 	97 80	40 40 40	110 93	130 113	245 200
McPhee Reservoir Inflow (2)	APR-JUL MAY-JUL	7 4 57	90 73	 	102 85	35 39	115 98	136 119	295 220
San Miguel R nr Placerville	APR-JUL MAY-JUL	41 34	50 43		57 50	45 44	64 57	76 69	128 113
Gurley Reservoir Inlet	APR-JUL MAY-JUL	5.1 4.1	6.7 5.6		8.0 6.9	49 48	9.4 8.3	11.8 10.8	16.4 14.3
Cone Reservoir Inlet	APR-JUL MAY-JUL	0.3	0.8 0.6		1.3 1.0	43 37	2.0 1.5	3.3 2.5	3.0 2.7
Lilylands Reservoir Inlet	APR-JUL MAY-JUL	0.5 0.4	0.7 0.6	 	0.9	47 48	1.1 1.0	1.5 1.4	1.9 1.7
Rio Blanco at Blanco Diversion (2)	APR-JUL MAY-JUL	18.5 13.6	22 17.1	 	25 19.7	46 44	27 22	32 27	54 45
Navajo R at Oso Diversion (2)	APR-JUL MAY-JUL	22 16.6	26 21	 	29 24	45 44	32 27	38 33	65 5 4
San Juan R nr Carracas (2)	APR-JUL MAY-JUL	117 86	139 108	 	156 125	41 42	174 143	200 171	380 300
Piedra R nr Arboles	APR-JUL MAY-JUL	66 40	79 53	 	89 63	42 41	100 74	117 91	210 153
Vallecito Reservoir Inflow (2)	APR-JUL MAY-JUL	81 66	91 76	 	99 84	51 49	107 92	119 104	194 171
Navajo Reservoir Inflow (2)	APR-JUL MAY-JUL	205 133	240 170	 	270 197	37 35	295 225	345 275	735 565
Animas R at Durango	APR-JUL MAY-JUL	133 113	154 134		170 150	41 41	186 166	210 192	41 5 365
Lemon Reservoir Inflow (2)	APR-JUL MAY-JUL	19.9 16.4	23 20	 	26 23	47 47	29 26	3 4 31	55 49
La Plata R at Hesperus	APR-JUL MAY-JUL	7.2 5.3	8.3 6.4		9.2 7.3	40 40	10.1 8.2	11.6 9.7	23 18.2
Mancos R nr Mancos (2)	APR-JUL MAY-JUL	7.2 6.3	8.9 8.0	 	10.1 9.2	33 38	11.4 10.5	13.5 12.6	31 24
SAN MIGUEL, DOLORES, ANIMA: Reservoir Storage (100)			BASINS	 ======		UEL, DOLORES, Watershed Sno			
	Usable		Le Storage	***	 		Numbe		Year as % of
Reservoir	Capacity 	This Year	Last Year	Avg	Waters 	shed	of Data Si	tes Last	Yr Median
GROUNDHOG	22.0	7.6	8.8	14.2	======= ANIMA	S RIVER BASIN	r 8	122	36
JACKSON GULCH	10.0	2.9	8.0	7.4	I DOLORI	ES RIVER BASI	n 5	168	33
					!		_		

Reservoir	Storage (1000 AF) - End	d of Apri	1	1	Watershed Snowpack Analysis - May 1, 2013					
Reservoir	Usable Capacity 		sable Storag Last Year	re *** Avg	Watershed	Number of Data Sites	This Year			
GROUNDHOG	22.0	7.6	8.8	14.2	ANIMAS RIVER BASIN	8	122	36		
JACKSON GULCH	10.0	2.9	8.0	7.4	DOLORES RIVER BASIN	5	168	33		
LEMON	40.0	11.5	27.5	23.4	SAN MIGUEL RIVER BASIN	5	130	19		
MCPHEE	381.0	197.9	340.9	304.6	SAN JUAN RIVER BASIN	4	169	54		
NARRAGUINNEP	19.0	11.9	19.0	17.1	TOTAL SAN MIGUEL, DOLO	RES 21	145	42		
VALLECITO	126.0	62.7	116.9	70.3 	AN JUAN RIVER BASINS					

^{* 90%, 70%, 50%, 30%,} and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table The average is computed for the 1981-2010 base period, except for the reservoir averages which are from 1971-2000.

The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 The value is natural volume - actual volume may be affected by upstream water management.
 Median value used in place of average.



Denver Federal Center, Bldg 56, Rm 2604 PO Box 25426 Denver, CO 80225-0426

Resources Conservation Service web page at http://www.wcc.nrcs.usda.gov/wsf/westwide.html In addition to the basin outlook reports, water supply forecast information for the Western United States is available from the Natural Resources Conservation Service and the National Weather Service monthly, January through May. The information may be obtained from the Natural

Issued by

Released by

Jason Weller Acting Chief

Phyllis Ann Philipps State Conservationist

Natural Resources Conservation Service U.S. Department of Agriculture

Natural Resources Conservation Service

Lakewood, Colorado

Colorado Basin Outlook Report

Natural Resources Conservation Service Lakewood, CO